



# 4100/4120-Series Digital Alarm Communications Transmitters Installation Instructions

## Introduction

This publication describes the installation procedure for the following:

- 4100/4120-0155 Serial Digital Alarm Communications Transmitter (DACT) (non-4100U/4100ES)
- 4100-6052 DACT (4100U/4100ES)

## Related Documentation

- *Field Wiring Diagram for 4100 Power Limited* (841-731) or,
- *Field Wiring Diagram for 4100 Non Power Limited* (841-995)
- *4100ES Fire Alarm System Installation Guide* (574-848)
- *T-Link TL250/TL300 Network Internet Alarm Communicator* #29034631
- *C900V2 Installation Guide Dialer Capture Ethernet Module* # F01U003472-02

## Content

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# Cautions and Warnings

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## Cautions and Warnings

**READ AND SAVE THESE INSTRUCTIONS.** Follow the instructions in this installation manual. These instructions must be followed to avoid damage to this product and associated equipment. Product operation and reliability depend upon proper installation.



**DO NOT INSTALL ANY SIMPLEX® PRODUCT THAT APPEARS DAMAGED-** Upon unpacking your Simplex product, inspect the contents of the carton for shipping damage. If damage is apparent, immediately file a claim with the carrier and notify an authorized Simplex product supplier.



**ELECTRICAL HAZARD -** Disconnect electrical field power when making any internal adjustments or repairs. All repairs should be performed by a representative or authorized agent of your local Simplex product supplier.



**STATIC HAZARD -** Static electricity can damage components. Handle as follows:

- Ground yourself before opening or installing components.
- Prior to installation, keep components wrapped in anti-static material at all times.

**FCC RULES AND REGULATIONS -PART 15 -** This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

# Introduction

<b>Overview</b>	<p>Digital Alarm Communications Transmitter's (DACT) are option cards that mount within 4100 Fire Alarm Control Panels (FACP).</p> <p>The 4100/4120-0155 Serial DACT, available for the 4100 (non-4100U/4100ES) only, can be programmed to notify the central station when specified events occur, or to report changes to a specific point's status.</p> <p>The 4100-6052 DACT, available for the 4100U and 4100ES, has four main functions:</p> <ul style="list-style-type: none"><li>• Notifying the central station when specified events occur</li><li>• Reporting changes to a specific point's status to the central station</li><li>• Connecting to a DSC TL300 transmitter for connection to a central station via Ethernet line (UL and ULC)</li><li>• Connecting to a Bosch C900V2 transmitter for connection to a Central Station through the Ethernet line (UL only)</li></ul>
<b>Phone Line Transmission</b>	<p>The DACT receive system status messages from the host FACP, and communicate the information over the public telephone network to a Digital Alarm Communications Receiver (DACR) at the central station.</p> <p>The DACT is connected to two telephone lines, which are not required to be "dedicated" to the fire alarm. They may be connected to other telecom equipment, but the DACT must be wired electrically "first" in the chain as shown in Figure 5. The telephone lines must be wired to DACT terminals TB1-2/TB1-3 and TB2-2/TB3-3 to ensure that the DACT can disconnect other telecom equipment in case the phone line is in use during an emergency. The other telecom equipment is wired to TB1-1/TB1-4 and TB2-1/TB2-4.</p> <p>The DACT is programmable for pulse or tone dialing , see the <i>ES PanelProgrammer's Manual</i> (574-849) for the programming instructions.</p> <p>The DACT detects whether or not a telephone line is connected to both inputs. A 4100 system trouble is signaled, both audibly and visibly, if either line is disconnected.</p>
<b>TL300 Ethernet Transmission (UL and ULC)</b>	<p>The DACT receives system status messages from the FACP using CID codes only. Then, it communicates the information over an Ethernet connection to a DACR at the central station. The telephone connections on the DACT are connected together, (R1 (TB1-2) to R2 (TB2-2) and T1 (TB1-3) to T2 (TB2-3). Then, a single pair is connected to the TL300 (T1 (TB1-2 of DACT) to T1 and R1 (TB2-3 of DACT) to R1). Since an actual telephone line is not used, TB1-1/TB1-4 and TB2-1/TB2-4 are not used. The correct IP address and other modes are programmed into the TL300, see programming section later in this manual.</p> <p>When the DACT goes off-hook, the TL300 sends a dial tone to the DACT. The panel dials the number of the central station and the TL300 send all the correct tones so that the DACT believes it is connected to the central station via a telephone line. Upon receipt of the information the TL300 sends the information to the central station via the Ethernet connection. The TL300 must be mounted within 20 feet, in the same room, in conduit. Power for the TL300 comes from the FACP. Refer to T-Link TL300 Installation Manual 29034531 for further details.</p>

## Introduction *(continued)*

### **C900V2 Ethernet Transmission (UL only)**

The DACT receives system status messages from the 4100U/4100ES using the codes listed on page 17. It then communicates the information over an Ethernet connection to a DACR at the central station. The telephone connections on the DACT are connected together; R1 (TB1-2) to R2 (TB2-2) and T1 (TB1-3) to T2 (TB2-3). Then a single pair is connected to the C900V2.

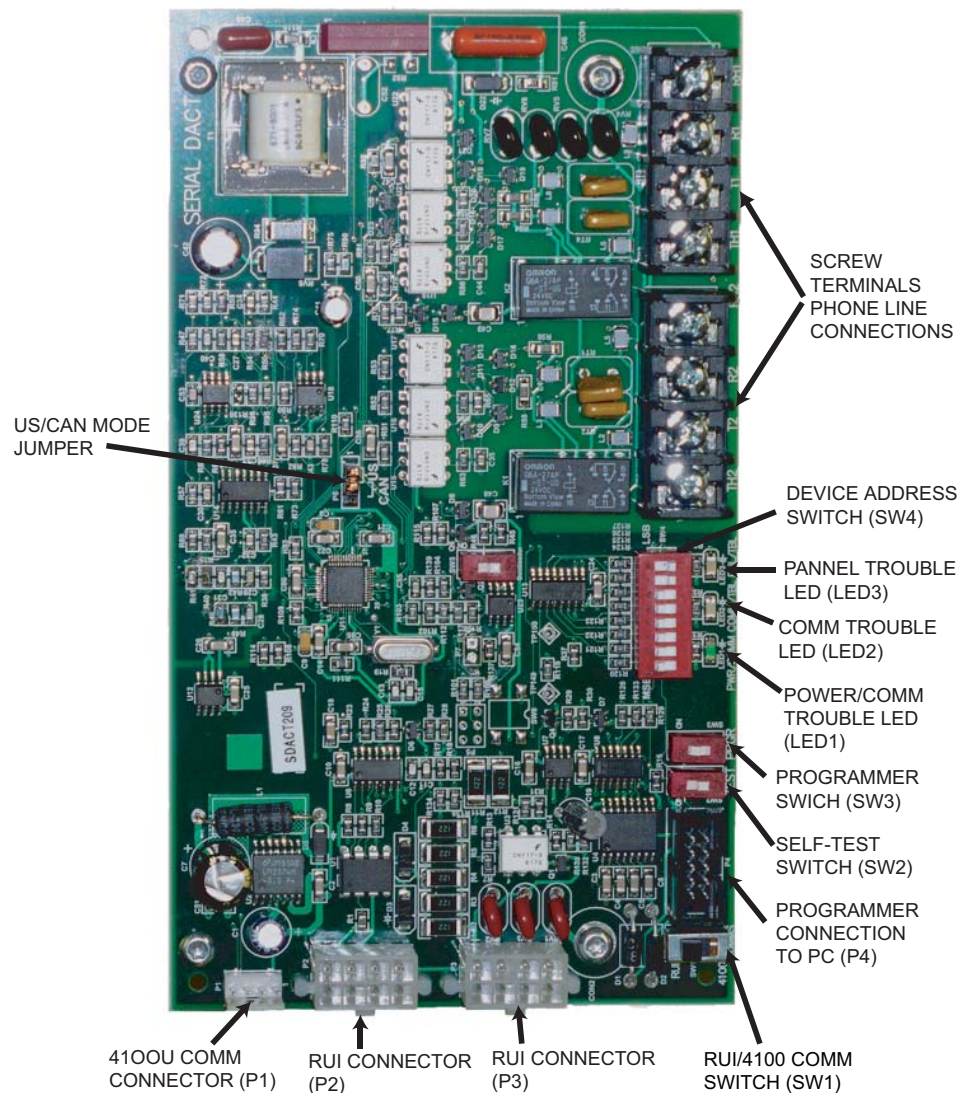
**Note:** Since an actual telephone line is not used, TB1-1/TB1-4 and TB2-1/TB2-4 are not used.

The correct IP address and other modes are programmed into the C900V2, refer to the Installation and Programming manual supplied with the C900V2.

When the DACT goes off-hook, the C900V2 sends a dial tone to the DACT. The panel dials the number of the central station and the C900V2 sends all the correct tones so that the DACT believes it is connected to the central station through the telephone line. Upon receipt of the information, the C900V2 sends the information to the central station through the Ethernet connection. The C900V2 must be mounted within 20 feet of the FACP and in the same room as it. It must also be enclosed in a conduit or be equivalently protected against mechanical changes.

### **Illustration**

Figure 1 is an illustration of Serial DACT card 566-787. The circuit boards for all DACTs described in this publication are identical.



**Figure 1. Serial DACT card 566-787**

*Continued on next page*

## Introduction *(continued)*

### LEDs

Refer to Table 1 for DACT LED indicators.

**Table 1. LED Indications**

LED	Possible State
Power (LED 1) Green LED	Not Illuminated. The system is not receiving DC power, or the power-up self-test failed.
	On Steady. The DACT is receiving DC power and is operational.
	Flashing. DACT is dialing up (or attempting to dial up) the central station.
Communication Trouble (LED 2) Yellow LED	Not Illuminated. No communication errors are being detected.
	On Steady. DACT cannot communicate with the Central Station. All dialing attempts have failed.
	Single Flashes. DACT detects a line fault on phone line 1.
	Double Flashes. DACT detects a line fault on phone line 2.
	Alternating Flashes. DACT detects line faults on both phone lines when LED alternates between single and double flashes.
Panel Communication Trouble (LED 3) Yellow LED	Not Illuminated. DACT is communicating with the host panel.
	On Steady. DACT cannot communicate with the host panel.
	Fast Flashes. There is a version mismatch between the host panel and the DACT.

### Specifications

Refer to Table 2 for DACT electrical requirements and environmental limitations.

**Table 2. Specifications**

Electrical Specifications	
Voltage	19 - 33V dc, 2V p-p max. ripple at 120 Hz
Current	Standby mode: 60 mA maximum Report mode: 126 mA maximum Programming mode: 45 mA maximum
Ground Isolation	DC resistance between 0 V and earth ground must exceed 1 Megohm
Environmental Specifications	
Temperature	32° to 120° F (0° to 49° C)
Humidity	Up to 93% relative humidity at 90° F (32° C)

## Power-Limited Wiring Guidelines

### Power-limited Wiring Guidelines

- Non-power limited field wiring (AC power, batteries, City connection) must be installed and routed in the shaded areas shown in Figure 2.
- Power-limited field wiring must be installed and routed in the non-shaded areas shown in Figure 2, with the exception of City wiring.
- Excess slack should be kept to a minimum inside the back box enclosure. The wiring should be neatly dressed and bundled together using the wire ties provided with the equipment. Anchor power-limited wiring to tie points, as shown in Figure 2.

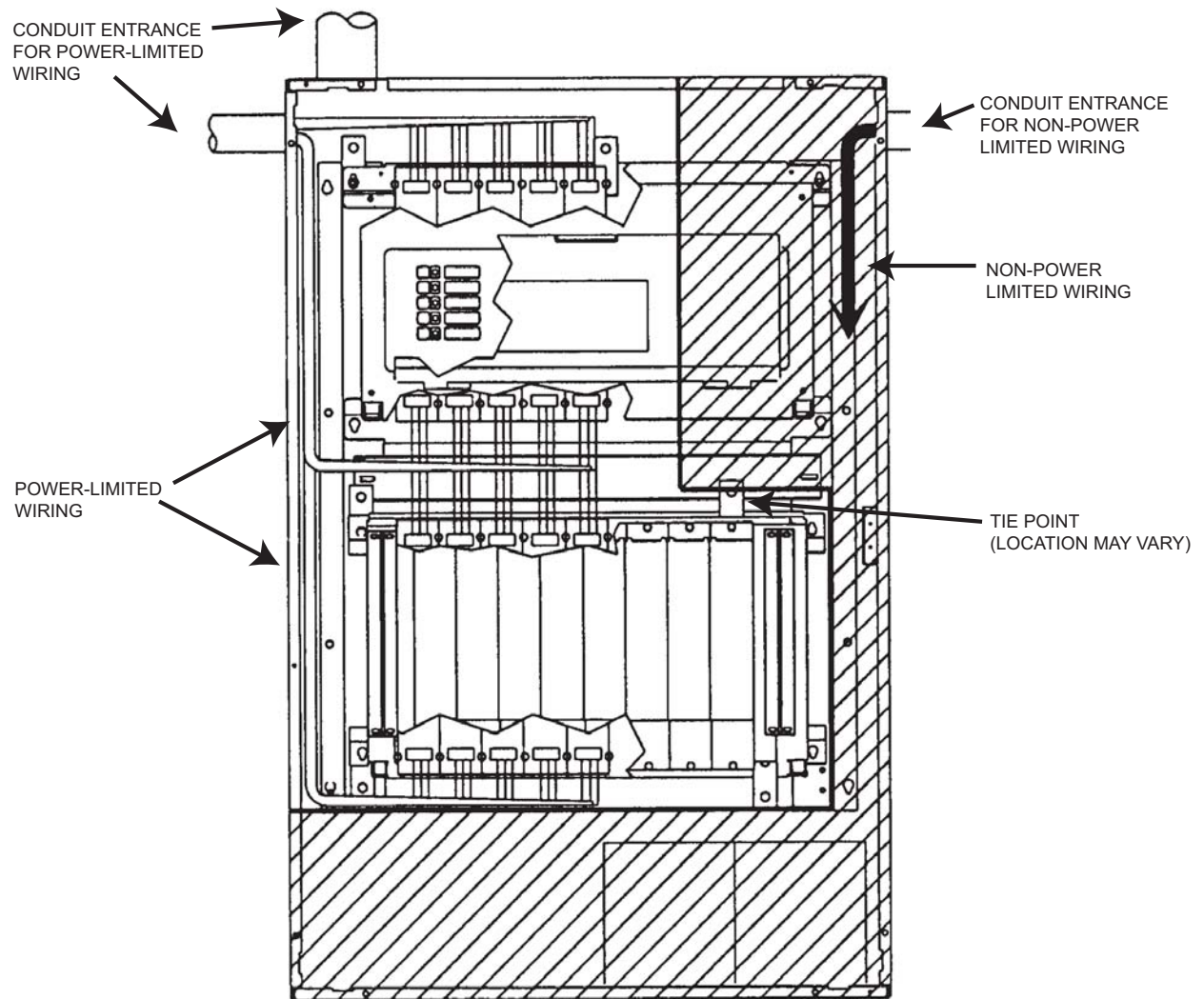


Figure 2. Power-limited wiring

- Tie the wiring located between bays to the internal wiring troughs, if applicable.
- When powering remote units or switching power through relay contacts, power for these circuits must be provided by a power-limited power supply that is listed for fire-protective signaling use.

## Connecting to the Phone Lines (not required when TL300 is used)

**Before Installation** Have the telephone company install two telephone lines, each terminated with an RJ-31X jack immediately above or as close as possible to the fire alarm control panel. Be prepared to supply the telephone company with the FCC information printed on the FCC and/or Industry Canada label.



**Caution:** Do not direct-connect the DACT to a coin telephone or party line. Be sure that the telephone lines that you are connecting the DACT to are standard analog lines and not digital (PBX), party, or coin telephone lines. The line must not have any Telephone Company (TELCO) features such as "CALL WAITING", etc.

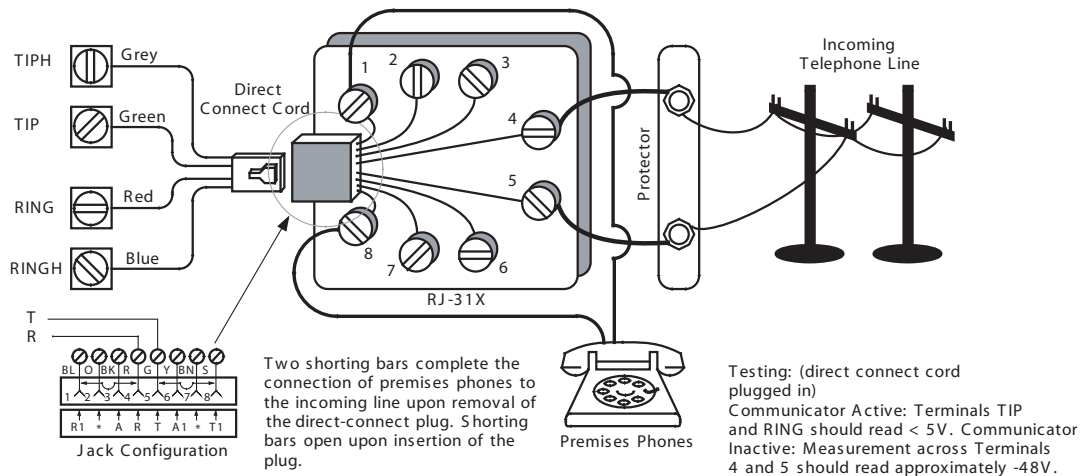
### Connecting the 2080-9047 Harness to the DACT and RJ-31X Jacks

The connection to the RJ-31X jacks must be made via the modular jack in installations where the DACT will share the telephone line with premises phones or other equipment. Use two Simplex harnesses for this connection - 2080-9047 (14 feet).

Refer to Figure 3 as you read the following instructions.

1. Connect the 2080-9047 Harness to the TB3 and TB4 screw terminals on the DACT as shown in Figure 3.
2. The two telephone line harnesses must take separate paths from the host FACP to the RJ-31X blocks. Use cable tie-wraps to provide strain relief for these cables. Secure the cables to any standoff or metal fixture along the cable run between the DACT and the panel exit.
3. Connect one harness to each RJ-31X jack.

**Note:** TELCO wiring is supervised.



**Figure 3. Telephone system connection (each line)**



# Configuring the DACT

## Overview

Configuring the DACT consists of:

- Setting the correct communication mode
- Specifying whether the DACT is in Test mode
- Specifying whether the DACT should be ready to download new programming data
- Setting the device address

This section covers all of these settings.

## Setting the COMM switch

Make sure switch SW1 is in the DOWN position. This specifies the 4100 communications mode.

## Setting the Test Switch

Make sure switch SW2 is in the DOWN (off) position. This should be used for testing the DACT, and then returned to the DOWN position. See “Testing.”

## Setting the Programmer Switch

To download data, switch SW3 must be in the UP position. During normal DACT operation, SW3 must be in the DOWN position. See the section on Testing and Compatibility.

## Setting the Address

The device address is set via DIP switch SW4, which is a bank of eight switches. From left to right (see Figure 4) these switches are designated as SW4-1 through SW4-8. The function of these switches is as follows:

- SW4-1. This switch sets the baud rate for the internal 4100 communications line running between the card and the 4100 CPU. Set this switch to ON.
- SW4-2 through SW4-8. These switches set the card’s address within the 4100 FACP. Refer to Table 3 for a complete list of the switch settings for all of the possible card addresses.

**Note:** You must set these switches to the value assigned to the card by the Programmer.

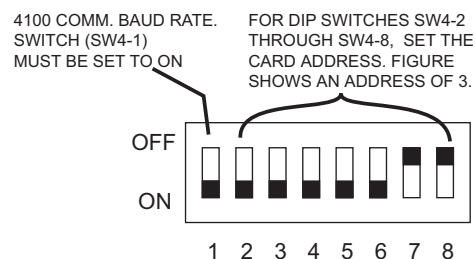


Figure 4. DIP switch SW4



# Configuring the DACT (Continued)

## Setting the address

Table 3. DACT card switch settings

Address	SW 4-2	SW 4-3	SW 4-4	SW 4-5	SW 4-6	SW 4-7	SW 4-8
1	ON	ON	ON	ON	ON	ON	OFF
2	ON	ON	ON	ON	ON	OFF	ON
3	ON	ON	ON	ON	ON	OFF	OFF
4	ON	ON	ON	ON	OFF	ON	ON
5	ON	ON	ON	ON	OFF	ON	OFF
6	ON	ON	ON	ON	OFF	OFF	ON
7	ON	ON	ON	ON	OFF	OFF	OFF
8	ON	ON	ON	OFF	ON	ON	ON
9	ON	ON	ON	OFF	ON	ON	OFF
10	ON	ON	ON	OFF	ON	OFF	ON
11	ON	ON	ON	OFF	ON	OFF	OFF
12	ON	ON	ON	OFF	OFF	ON	ON
13	ON	ON	ON	OFF	OFF	ON	OFF
14	ON	ON	ON	OFF	OFF	OFF	ON
15	ON	ON	ON	OFF	OFF	OFF	OFF
16	ON	ON	OFF	ON	ON	ON	ON
17	ON	ON	OFF	ON	ON	ON	OFF
18	ON	ON	OFF	ON	ON	OFF	ON
19	ON	ON	OFF	ON	ON	OFF	OFF
20	ON	ON	OFF	ON	OFF	ON	ON
21	ON	ON	OFF	ON	OFF	ON	OFF
22	ON	ON	OFF	ON	OFF	OFF	ON
23	ON	ON	OFF	ON	OFF	OFF	OFF
24	ON	ON	OFF	OFF	ON	ON	ON
25	ON	ON	OFF	OFF	ON	ON	OFF
26	ON	ON	OFF	OFF	ON	OFF	ON
27	ON	ON	OFF	OFF	ON	OFF	OFF
28	ON	ON	OFF	OFF	OFF	ON	ON
29	ON	ON	OFF	OFF	OFF	ON	OFF
30	ON	ON	OFF	OFF	OFF	OFF	ON
31	ON	ON	OFF	OFF	OFF	OFF	OFF
32	ON	OFF	ON	ON	ON	ON	ON
33	ON	OFF	ON	ON	ON	ON	OFF
34	ON	OFF	ON	ON	ON	OFF	ON
35	ON	OFF	ON	ON	ON	OFF	OFF
36	ON	OFF	ON	ON	OFF	ON	ON
37	ON	OFF	ON	ON	OFF	ON	OFF
38	ON	OFF	ON	ON	OFF	OFF	ON
39	ON	OFF	ON	ON	OFF	OFF	OFF
40	ON	OFF	ON	OFF	ON	ON	ON
41	ON	OFF	ON	OFF	ON	ON	OFF
42	ON	OFF	ON	OFF	ON	OFF	ON
43	ON	OFF	ON	OFF	ON	OFF	OFF
44	ON	OFF	ON	OFF	OFF	ON	ON
45	ON	OFF	ON	OFF	OFF	ON	OFF
46	ON	OFF	ON	OFF	OFF	OFF	ON
47	ON	OFF	ON	OFF	OFF	OFF	OFF
48	ON	OFF	OFF	ON	ON	ON	ON
49	ON	OFF	OFF	ON	ON	ON	OFF
50	ON	OFF	OFF	ON	ON	OFF	ON
51	ON	OFF	OFF	ON	ON	OFF	OFF
52	ON	OFF	OFF	ON	OFF	ON	ON
53	ON	OFF	OFF	ON	OFF	ON	OFF
54	ON	OFF	OFF	ON	OFF	OFF	ON
55	ON	OFF	OFF	ON	OFF	OFF	OFF
56	ON	OFF	OFF	OFF	ON	ON	ON
57	ON	OFF	OFF	OFF	ON	ON	OFF
58	ON	OFF	OFF	OFF	ON	OFF	ON
59	ON	OFF	OFF	OFF	ON	OFF	OFF
60	ON	OFF	OFF	OFF	OFF	ON	ON

Address	SW 4-2	SW 4-3	SW 4-4	SW 4-5	SW 4-6	SW 4-7	SW 4-8
61	ON	OFF	OFF	OFF	OFF	ON	OFF
62	ON	OFF	OFF	OFF	OFF	OFF	ON
63	ON	OFF	OFF	OFF	OFF	OFF	OFF
64	OFF	ON	ON	ON	ON	ON	ON
65	OFF	ON	ON	ON	ON	ON	OFF
66	OFF	ON	ON	ON	ON	OFF	ON
67	OFF	ON	ON	ON	ON	OFF	OFF
68	OFF	ON	ON	ON	OFF	ON	ON
69	OFF	ON	ON	ON	OFF	ON	OFF
70	OFF	ON	ON	ON	OFF	OFF	ON
71	OFF	ON	ON	ON	OFF	OFF	OFF
72	OFF	ON	ON	OFF	ON	ON	ON
73	OFF	ON	ON	OFF	ON	ON	OFF
74	OFF	ON	ON	OFF	ON	OFF	ON
75	OFF	ON	ON	OFF	ON	OFF	OFF
76	OFF	ON	ON	OFF	OFF	ON	ON
77	OFF	ON	ON	OFF	OFF	ON	OFF
78	OFF	ON	ON	OFF	OFF	OFF	ON
79	OFF	ON	ON	OFF	OFF	OFF	OFF
80	OFF	ON	OFF	ON	ON	ON	ON
81	OFF	ON	OFF	ON	ON	ON	OFF
82	OFF	ON	OFF	ON	ON	OFF	ON
83	OFF	ON	OFF	ON	ON	OFF	OFF
84	OFF	ON	OFF	ON	OFF	ON	ON
85	OFF	ON	OFF	ON	OFF	ON	OFF
86	OFF	ON	OFF	ON	OFF	OFF	ON
87	OFF	ON	OFF	ON	OFF	OFF	OFF
88	OFF	ON	OFF	OFF	ON	ON	ON
89	OFF	ON	OFF	OFF	ON	ON	OFF
90	OFF	ON	OFF	OFF	ON	OFF	ON
91	OFF	ON	OFF	OFF	ON	OFF	OFF
92	OFF	ON	OFF	OFF	OFF	ON	ON
93	OFF	ON	OFF	OFF	OFF	ON	OFF
94	OFF	ON	OFF	OFF	OFF	OFF	ON
95	OFF	ON	OFF	OFF	OFF	OFF	OFF
96	OFF	OFF	ON	ON	ON	ON	ON
97	OFF	OFF	ON	ON	ON	ON	OFF
98	OFF	OFF	ON	ON	ON	OFF	ON
99	OFF	OFF	ON	ON	ON	OFF	OFF
100	OFF	OFF	ON	ON	OFF	ON	ON
101	OFF	OFF	ON	ON	OFF	ON	OFF
102	OFF	OFF	ON	ON	OFF	OFF	ON
103	OFF	OFF	ON	ON	OFF	OFF	OFF
104	OFF	OFF	ON	OFF	ON	ON	ON
105	OFF	OFF	ON	OFF	ON	ON	OFF
106	OFF	OFF	ON	OFF	ON	OFF	ON
107	OFF	OFF	ON	OFF	ON	OFF	OFF
108	OFF	OFF	ON	OFF	OFF	ON	ON
109	OFF	OFF	ON	OFF	OFF	ON	OFF
110	OFF	OFF	ON	OFF	OFF	OFF	ON
111	OFF	OFF	ON	OFF	OFF	OFF	OFF
112	OFF	OFF	OFF	ON	ON	ON	ON
113	OFF	OFF	OFF	ON	ON	ON	OFF
114	OFF	OFF	OFF	ON	ON	OFF	ON
115	OFF	OFF	OFF	ON	ON	OFF	OFF
116	OFF	OFF	OFF	ON	OFF	ON	ON
117	OFF	OFF	OFF	ON	OFF	ON	OFF
118	OFF	OFF	OFF	ON	OFF	OFF	ON
119	OFF	OFF	OFF	ON	OFF	OFF	OFF

# Data and Power Wiring

## Wiring Guidelines

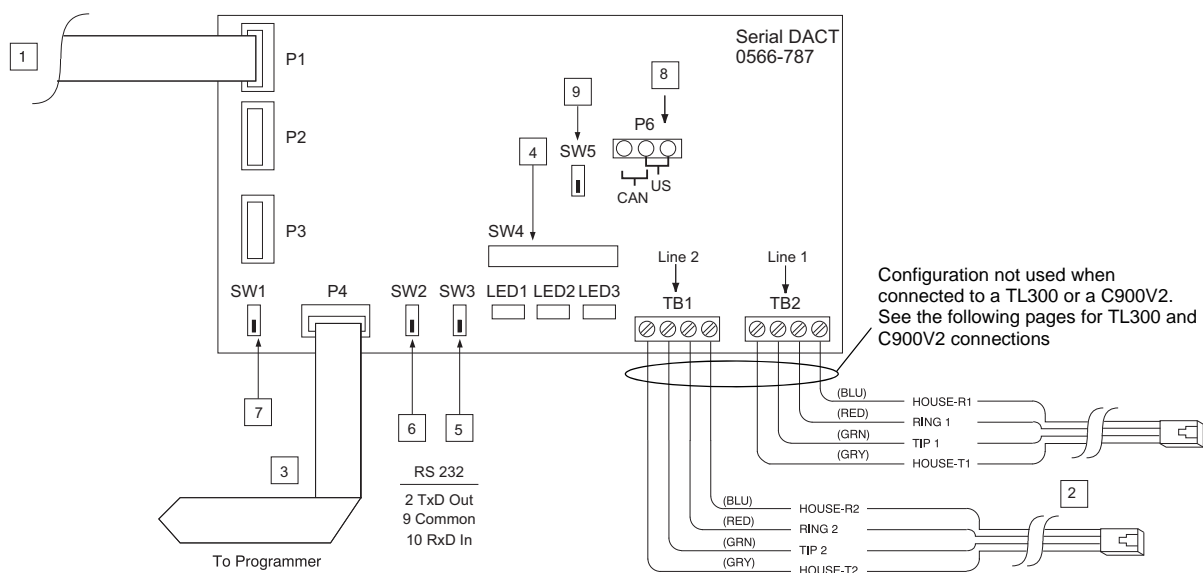
Review the following guidelines before wiring P1 and P4 of the DACT.

- If U.T. motherboard 565-274 or 565-213 is wired to the DACT, jumper P4 on the motherboard must be at position 13.
- Unless otherwise noted, wiring is not supervised.
- Cut and strip wire harnesses to the proper length, if required.

## Wiring an Serial DACT Card Into the System

**Note:** Unless otherwise noted, wiring is not supervised.

1. Wire the Serial DACT into the system in accordance with Figure 5.
2. Route the TELCO cables using separate paths from panel exit to RJ-31X modules
3. Use the cable tie-wraps (supplied) to provide strain relief for these cables. Secure the cables to any standoff or metal fixture along the cable run between the Serial DACT and the panel exit.



**Figure 5. Serial DACT card 0566-787**

### Figure 5 Notes:

#### 1. Factory connections:

- 4100: Connect to the nearest 4100/4120 Motherboard P2/P3 plugs: white wire socket to P3, blue wire socket to P2. Observe orientations.
- 4100U/4100ES: Connect to the nearest 4100/4120 Motherboard P2/P3 plugs or /4100ES Motherboard P7/ P8 plugs: white wire socket to P7, blue wire socket to P8. Observe orientations.

#### 2. Power-limited wiring. Route the TELCO cables from the terminal blocks to the left side of panel, and exit at the top-left of enclosure. Using the 2080-9046 Harness (7 ft. cable), -9047 Harness (14 ft. cable), or equivalent, connect to the TELCO jacks. Splice as required (using a minimum of 22 AWG wire) to complete the desired span. The TELCO wiring is supervised.

#### 3. Cable connection to Serial DACT Programmer (only present during set-up).

- 4100: Switch SW3 must be placed in the ON position for the download. When the download is completed, place switch SW3 in the OFF position for normal operation. Cable is not supervised.
- 4100U/4100ES: Connection to the Programmer is not required for 4100U/4100ES installations. Programmer switch SW3 must remain in the OFF position. SDACT program is updated automatically after system download.

#### 4. Card Address Switch (SW4).

#### 5. Programmer Switch (SW3). Slide switch SW3 to the ON (up) position to program and download. Return to OFF position for normal operation. Note: "Up" and "down" switch references become "in" and "out" after the board is installed.

#### 6. SDACT Manual Test Switch (SW2). Slide switch SW2 to the ON (up) position for a manual test that will dial and attempt DACR communication. Return to the OFF position for normal operation.

#### 7. COMM Switch (SW1). Switch SW1 must be in the down position for 4100/4120 communication.

#### 8. U.S./Canada Operating Mode Jumper:

- U.S. mode is selected when there is no jumper or jumpers are connected to pin 1 and 2.
- Canada mode is selected when jumpers are connected to pin 2 and 3

#### 9. Bootloader Switch (SW5). The bootloader switch should be left in the off position for SDACT operation. If necessary, It can be used to allow a field upgrade to the SDACT firmware. Instructions for using the bootloader will be included with any required firmware upgrades. (See Technical Support web site for future availability.)

## Data and Power Wiring (Continued)

### Wiring the DACT to the TL300

Wire the DACT to the TL300 in accordance with Figure 6 and Figure 7.

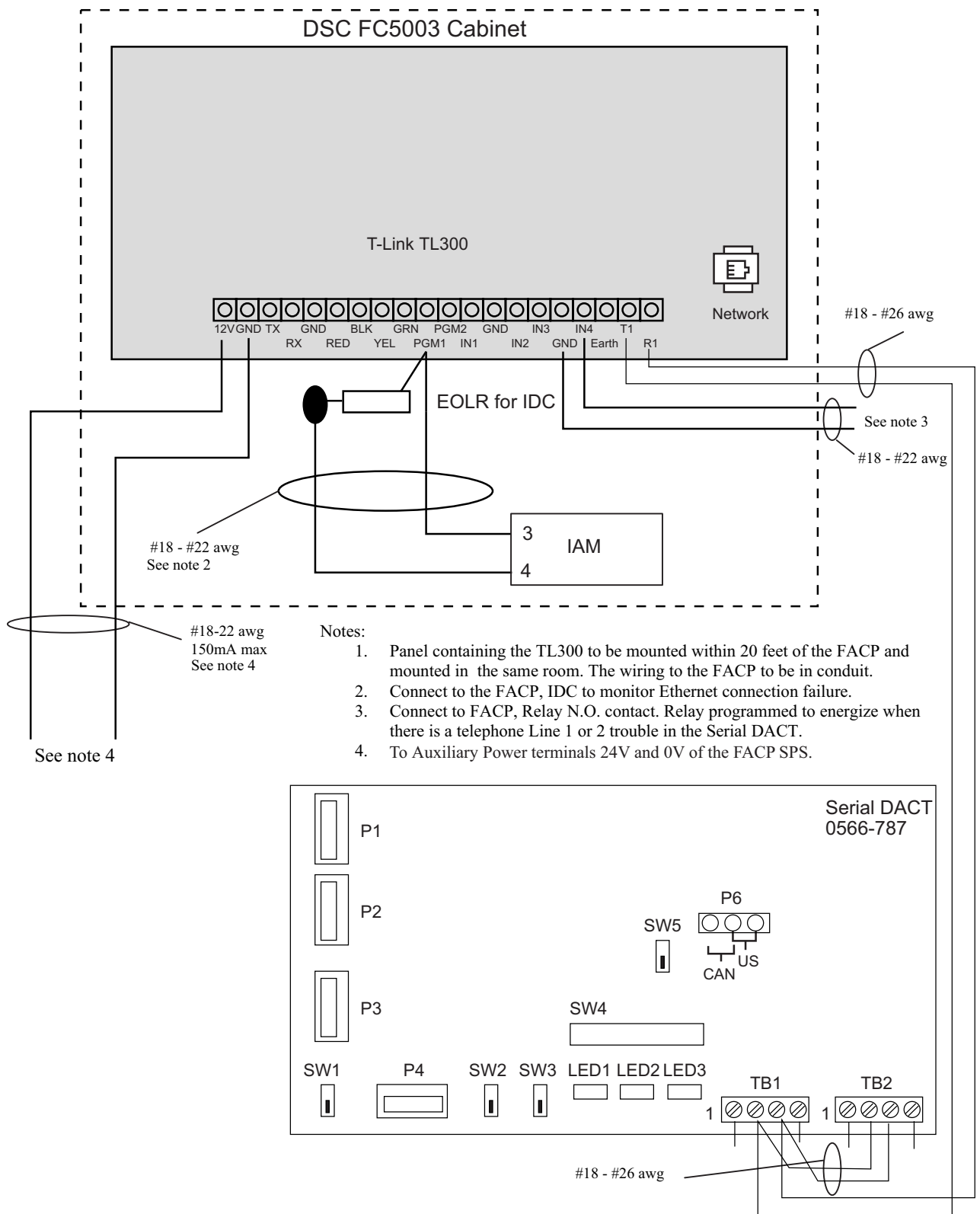


Figure 6. Wiring the DACT to the TL300

## Data and Power Wiring (Continued)

### Wiring the DACT to the C900V2 DACT (UL only)

Figure 7 Notes:

1. A Bosch C900V2 in a Bosch AE2 enclosure must be mounted within 20 feet of the FACP and be in the same room as it. The wiring to the FACP must be enclosed in the conduit or be equivalently protected against mechanical damage. The cabinet must be grounded.

2. Wire the C900V2 to the FACP's IDC to monitor LAN and board failure. Make connections as shown.

3. Consult installation guide F01U003472 for programming and setup instruction for the C900V2

4. T1AUX, R1AUX, T2Aux and R2AUX are not used. Auxiliary equipment cannot be used either.

5. Wire the C900V2 to the 4100U/4100ES SPS Aux Power terminal, TB3-1 0V, TB3-2 +24. Maximum current draw of C900V2 is 280ma.

6. Wire jumper TB1-2 to TB2-2 and TB2-3 to TB3-3.

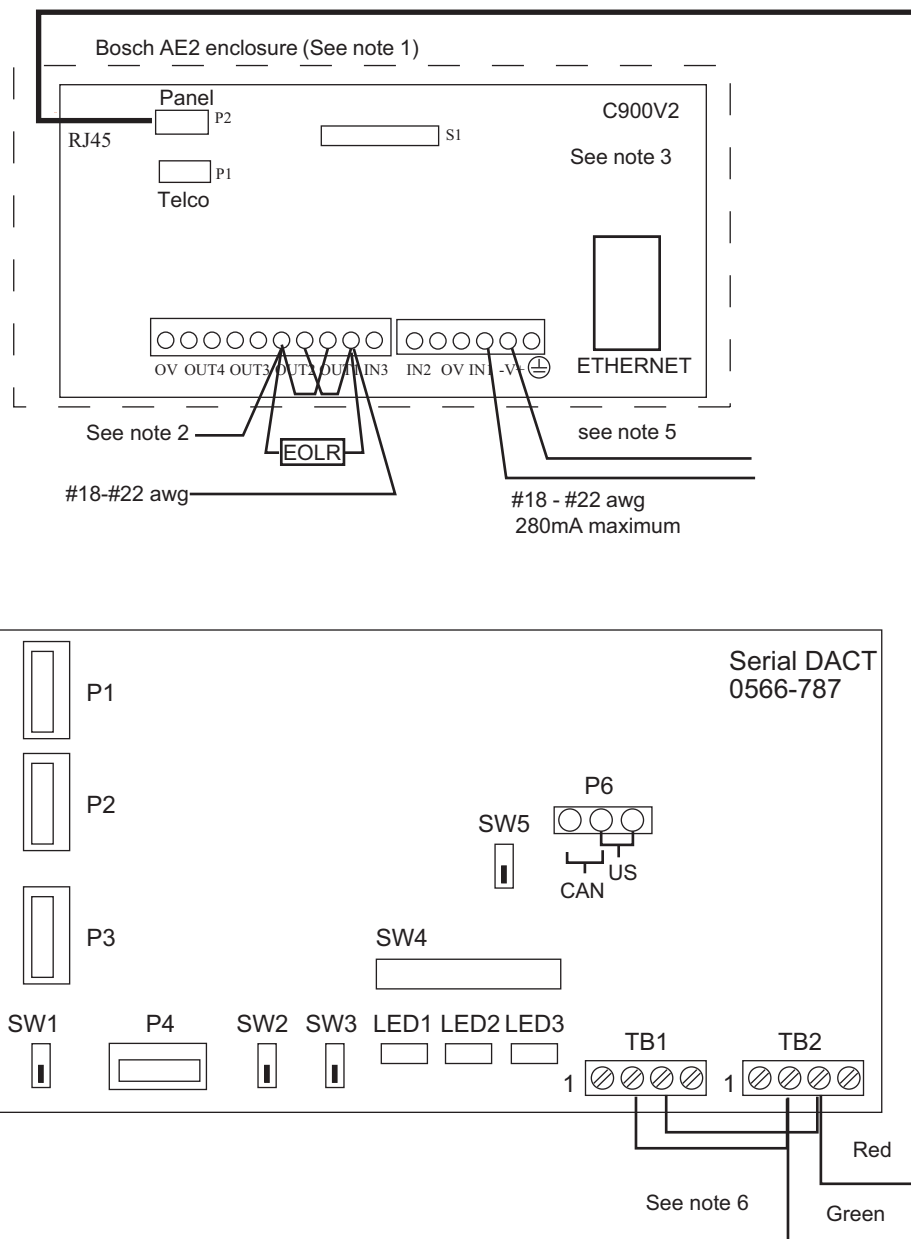


Figure 7. Wiring the DACT to the C900V2 DACT (UL only)

# Mounting

## Overview

Both assemblies are designed for different systems.

- The 4100/4120-0155 Serial DACT mounts into a non-4100U/4100ES systems (with 2975-91xx Back Boxes).
- The 4100-6052 DACT mounts into a 4100U/4100ES systems (with 2975-94xx Back Boxes).

This section describes how to mount the cards into both types of bays.

## Mounting Serial DACT 4100/4120-0155

Use the instructions and figure below to mount a 4100/4120-0155 Serial DACT bracket into a 4100 Back Box (PID series 2975-91xx). The directions are the same regardless of whether you're installing the DACT into a CPU bay or an expansion bay. See Figure 8.

1. Secure the DACT assembly to the chassis. Secure the bracket to the chassis using four #6 screws.
2. (If applicable) Disconnect one of the two battery terminals, and then remove AC power at the power source.
3. (If applicable) Disconnect and remove the optional city card(s). Tie off and remove the city circuit wiring.
4. Place the DACT assembly into any open slot in the CPU bay or an expansion bay, but if the bay has relay cards, the relay cards must be installed in the far right of the bay.

**Note:** It is recommended that the Serial DACT be installed in the far left or far right slot. This module does not have a J1 or P1 connector (which are used to distribute power and communications to adjacent modules.)

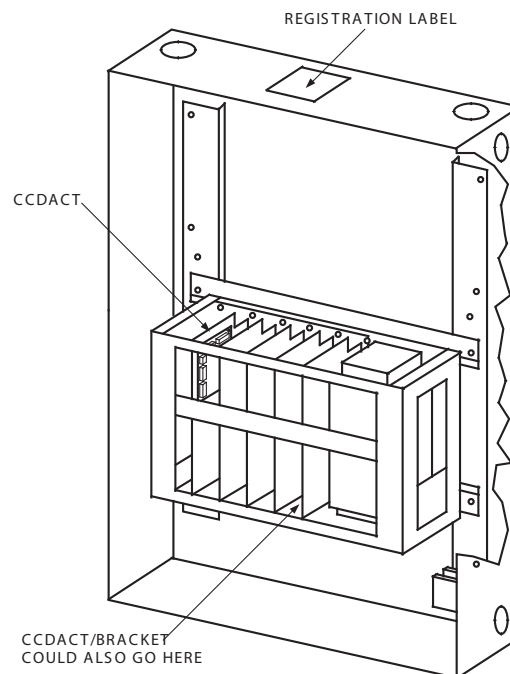


Figure 8. Installing the motherboard into a 4100 back box

## Mounting (Continued)

### Mounting DACT 4100-6052

- The 4100-6052 DACT can only be installed in the CPU bay.
- The DACT must be the leftmost assembly in the CPU bay.
- See Figure 9.

1. Disconnect AC power at the source. Disconnect the + (red) wire from the battery.
2. Install harness 733-929 as shown. Connect from P1 on the DACT to the two 4-position connectors on the CPU motherboard. The blue wire to the top connector (P8) and the white wire to the bottom connector (P7).
3. Secure the DACT bracket to the leftmost slot on the chassis using four #6 standoffs (screwed to the chassis) and four #6 screws.

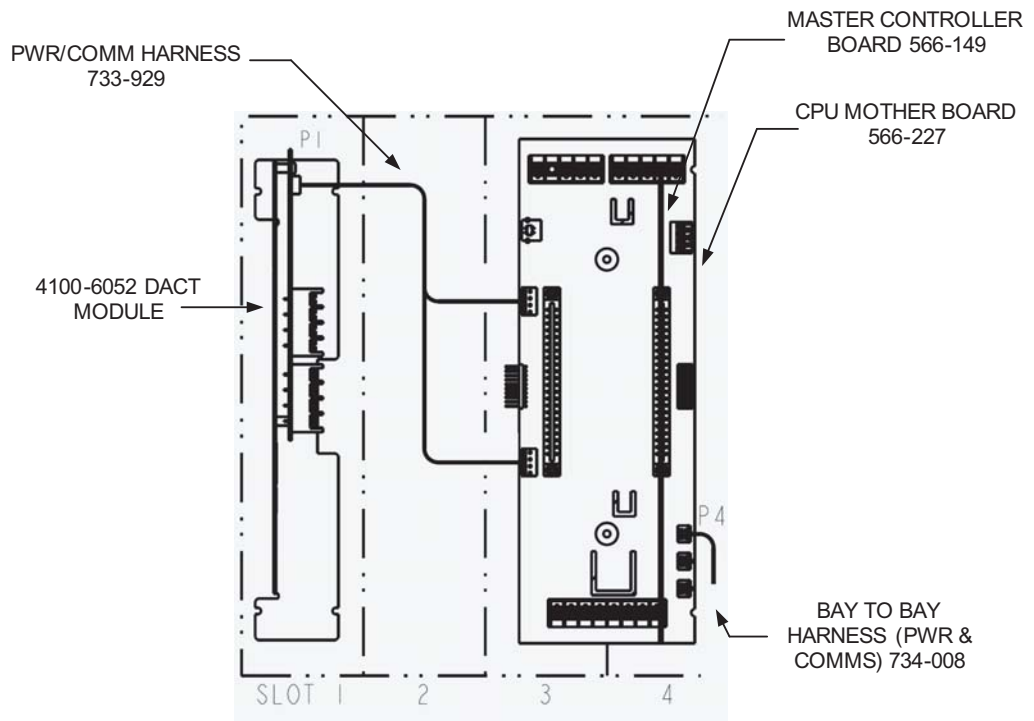


Figure 9. Mounting the 4100-6052 DACT module

# Programming

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## 4100/4120 Programming

The DACT must be selected in the Programmer. Refer to Serial DACT Installation and *Programming Instructions* (574-090) for specific programming requirements.

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## 4100U/4100ES Programming

The correct DACT card must be selected in the 4100U/ES Panel Programmer. Refer to the *ES Panel Programmer's Manual* (574-849).

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## Additional Programming

When a DACT connects to a TL300, additional programming is required.

1. To monitor the relay contact of a relay located in the cabinet with the TL300. This relay will energize and open the IDC circuit when the Ethernet connection to the Central station has been broken.
2. Program a Relay so that it will energize on the telephone Line 1 or Line 2 fault. The N.O. contacts will connect to GND and AN4 of the TL300.

An example equation is below. The Serial DACT is at address 9 and the Aux relay on the SPS (Aux 3) is used.

```
INPUTS ]
  STATUS TBL
    9-0-3 | CARDSTAT | CSP | PHONE LINE 1
  OR STATUS TBL
    9-0-4 | CARDSTAT | CSP | PHONE LINE 2
[END INPUTS ]
[OUTPUTS ]
  TRACK ON PRI=9,9
    AUX3 | RELAY | RELAY | AUX RELAY CARD 1 RELAY CKT AUX3
[END OUTPUTS ]
```

---

## TL300 Programming

Refer to T-Link TL250/TL300 Network Internet Alarm Communicator #29034631 for information concerning the programming of the TL300.

In addition to the required programming in the manual for the ULC compliance:

- Section 035 PGM1 needs to be Enabled.
- Section 039 needs to be code 98 24 hr. Panel Absent.



# Testing

---

## Testing

When the DACT is connected to the system, its operations should be tested with the manual TEST switch (SW1). The manual test ensures that:

- The phone line is working.
- The DACT has been programmed with a correct phone number.
- Communications with the central station work.

When the manual switch is activated, the DACT dials the central station and transmits a "manual test" event code to the DACR located at the central station. During the dialing process, the green power/comm LED (LED1) should change from steady on to flashing, indicating that the DACT is attempting communications with the central station. The green LED should change back from flashing to the steady on state when communication is established.

When the green LED returns to steady on, return the TEST switch to the OFF position.

# Compatibility

## Compatibility

Refer to Table 4 for compatibility information.

**Table 4. Compatibility information**

	Comm. Format	Osborne/ Hoffman Quickalert Model II	ADEMCO 685 (Notes 2, 6)	Silent Knight 9000	FBI CP220FB (Notes 5, 6)	BOSCH RADIONICS 6500/6600 (Notes 6, 8)	SUR-GARD MLR2-DG (Note 7)
1	3/1 Standard 1800/2300 Hz (Note 1)	YES	YES	YES (Note 3)	YES	YES	YES
2	3/1 Standard 1900/1400 Hz (Note 1)	YES	YES	YES (Note 3)	YES	YES	YES
3	4/2 Standard 1800/2300 Hz (Note 1)	YES	YES	YES (Note 3)	YES	YES	YES
4	4/2 Standard 1900/1400 Hz (Note 1)	YES	YES	YES (Note 3)	YES	YES	YES
5	ADEMCO CONTACT ID	YES	YES	NO	YES	NO/YES (Notes 6, 8)	YES
6	SIA	YES	NO	YES (Note 4)	NO	NO/YES (Note 6)	YES
7	RADIONICS BFSK 1800/2300 Hz	YES	YES	YES (Note 3)	YES	YES	YES
8	RADIONICS BFSK 1900/1400 Hz	YES	YES	YES (Note 3)	YES	YES	YES

Table notes:

1. 10 and 20 PPS (Pulses Per Second)

2. With 685-8 Line Card

3. With 9032 Line Card

4. With 9004 Line Card

5. With Rec-11 Line Card

6. With or without D6680 Network Ethernet Adapter in D6600 (4100U/4100ES)

7. DDC TL300 (4100U/4100ES)

8. The 4100-6052 DACT is suitable for Proprietary Protected Premises Service when communicating with the 6600 receiver via Ademco Contact ID format and the 6600 is also monitored by the 4190-8403 Truesite Workstation serving as the operator interface.

